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BRICKFIELD BURCHETTE  
RITTS & STONE, PC

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WASHINGTON, D.C.  
AUSTIN, TEXAS

April 18, 2006

**Via Federal Express**

Mr. Charles Terreni  
Chief Clerk  
Public Service Commission of South Carolina  
101 Executive Center Drive  
Suite 100  
Columbia, SC 29210

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. –  
Annual Review of Base Rates for Fuel Costs.  
Docket No. 2006-1-E

Dear Mr. Terreni:

I have enclosed an original and eleven copies of *Nucor Steel-South Carolina's Motion to Compel PEC to Respond to Nucor Discovery Request No. NUC-1-30* for filing in the above referenced matter. Please date stamp and return the extra copy for our files in the enclosed envelope.

Sincerely,



Garrett A. Stone

Enclosure

cc: All Parties

**BEFORE THE  
PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA**

**DOCKET NO. 2006-1-E**

IN THE MATTER OF: )

Carolina Power & Light Company d/b/a )

Progress Energy Carolinas, Inc. )

Annual Review of Base Rates for )

Fuel Costs )

**Nucor's Motion to Compel PEC  
to Respond to Nucor Discovery  
Request No. NUC-1-30**

Nucor Steel-South Carolina hereby moves, pursuant to Rule 103-854 of the Rules of Practice and Procedure of the Public Service Commission of South Carolina and Rule 37 of the S.C. Rules of Civil Procedure (and any related Commission Rules of Practice and Procedure), that the Commission issue an order compelling Carolina Power & Light d/b/a Progress Energy Carolinas, Inc. ("PEC") to respond to Nucor Data Request No. NUC 1-30. In support of its Motion to Compel, Nucor states the following:

1. On April 3, 2006, counsel for Nucor served PEC electronically and by hard copy delivery with its First Set of Continuing Data Requests. On April 10, 2006, PEC electronically returned responses and objections to a few of these requests, specifically including Nucor's Request No. NUC-1-30. PEC's objection to Request NUC-1-30 (including the full text of the request) is attached hereto as Attachment 1.

2. PEC objects to Request NUC-1-30 in its entirety solely on the ground that the information requested is not relevant to the issues before the Commission in this proceeding. PEC is in error. The information requested relates to fuel costs incurred and recovered under PEC's real-time pricing (RTP)

tariffs in South Carolina and North Carolina and how these fuel costs and fuel-related revenues are and should be treated for purposes of determining PEC's South Carolina fuel factor.

3. The Commission's regulation 103-851 provides for a wide scope of discoverable information, recognizing that in order for the Commission to effectively regulate a complex utility, the Commission and interested parties must have access to a broad range of information that can only be found in the books and records of the utility. It provides that any material that is relevant to the subject matter involved in a pending proceeding may be discovered by any interested party unless the material is privileged or related and prepared as strategy work papers directly for the pending proceeding. See *Practice and Procedure Rule* 103-851.

4. It is Nucor's position that if customers under PEC's RTP rates in South Carolina and North Carolina pay rates that reflect and include marginal fuel costs, rather than a fuel factor reflecting average fuel costs like all other customers (a fact PEC has previously admitted and its tariffs clearly show), then these marginal fuel costs should not also be charged to other customers under the fuel factor. (It should be noted that Nucor is not objecting to the RTP tariffs; Nucor is only contending that if these customers already pay the costs, other customers should not.) The discovery Nucor has requested is intended to provide evidence to address this issue, including evidence to attempt to calculate a potential adjustment for the Commission's consideration. We believe that the potential adjustment could be substantial and that it is particularly important,

during a time when PEC's fuel factor is at an all-time high, to carefully scrutinize all fuel costs proposed to be recovered to ensure that they are not already being recovered elsewhere.

5. The present proceeding is intended to review historical and projected PEC fuel costs, determine what fuel costs should be recovered, and determine the appropriate rate mechanism to permit PEC to recover such costs. See *S.C. Code Ann.* § 58-27-865. As such, by definition, how fuel costs are recovered from RTP customers and how these costs should be treated for purposes of the fuel factor is clearly relevant – otherwise these costs could be recovered twice, first from RTP customers and second from all other customers. Said another way, in order for the Commission to determine whether these RTP marginal fuel costs should be recovered in the fuel factor, the Commission must first determine if these costs have already been recovered from other customers (either in NC or through the SC RTP rates). Thus, information regarding the incurrence and recovery of such fuel costs through PEC's RTP rates is obviously relevant, as well as sufficient information to determine the amount of such recovery.

6. Although this issue has never been resolved by the Commission, it is not a new issue. As part of its filed testimony in last year's review of PEC's fuel costs (Docket No. 2005-1-E), Nucor's witness Dr. Jay Zarnikau expressly questioned whether Progress should be required to adjust its fuel costs recoverable through the fuel factor to reflect marginal fuel costs already recovered or projected to be recovered through the RTP rates. This issue was

not addressed by the Commission last year as a result of a settlement among the parties, thereby leaving the issue for future resolution. The relevant portion of Dr. Zarnikau's testimony (including his exhibits) is attached hereto as Attachment 2. PEC did not object to Nucor's discovery on this subject last year. In last year's proceeding, Nucor was unable to propose a precise adjustment because it had limited time and data. Therefore in this proceeding, Nucor is seeking more comprehensive data to permit it to make as precise a calculation as reasonably possible.

7. It should be noted that the Office of Regulatory Staff has also requested information regarding PEC's fuel cost recovery in its RTP rates. PEC responded to, and did not object to their request No. 1-11. A copy of PEC's response to this request is attached hereto as Attachment 3.

WHEREFORE, for the reasons set forth above, Nucor moves this Commission to issue an order compelling PEC to provide a full and complete response to Request NUC-1-30 and for such other relief as the Commission may deem appropriate.

Respectfully submitted,  
BRICKFIELD, BURCHETTE, RITTS &  
STONE, P.C.

  
Garrett A. Stone

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Counsel for Nucor Steel – South  
Carolina

Date: April 18, 2006

## **ATTACHMENT 1**

**PROGRESS ENERGY CAROLINAS, INC.**

**Request:**

Referring to PEC's real-time pricing ("RTP") rate (whether in NC or SC):

- (a) Provide the RTP Hourly Energy Charge by hour (and the hourly marginal fuel cost used as a basis for that charge, if different) for each hour during the historical period.
- (b) Provide the RTP Hourly Sales (per kWh) (reflecting only net sales subject to hourly RTP rates) sold in each hour during the historical period.
- (c) Provide the total RTP Hourly Sales (kWh) (reflecting only net sales subject to hourly RTP rates) sold during the historical period and projected to be sold during the projected period by month.
- (d) Provide the total Hourly RTP Rate revenues (reflecting only net sales subject to hourly RTP rates) during the historical period and projected to be sold during the projected period by month.
- (e) Provide the total marginal fuel costs recovered in the Hourly RTP Rate (reflecting only net sales subject to hourly RTP rates) from all customers for each month during the historical period and the projected period.
- (f) Provide the average fuel costs for each hour of the historical period.
- (g) Provide an estimate of the average fuel costs for each hour of the historical period if PEC had not served RTP customers in those hours.
- (h) Provide the hourly non-RTP sales for each hour of the historical period.
- (i) Indicate (or provide PEC's best estimate of) the percentage of hourly Marginal Energy Cost separately attributable to (i) marginal fuel, (ii) operating and maintenance expenses, and (iii) delivery losses.
- (j) Provide electronic spreadsheets with the data for responses to (a) through (i) above.
- (k) Indicate the number of customers served under the RTP rate in each jurisdiction.
- (l) Explain in detail how PEC treats the RTP rate for fuel cost purposes (is the treatment different between NC and SC?).
- (m) Please provide a copy of each real-time pricing tariff.
- (n) Identify and provide all other internal and external documents explaining the operation of the real time pricing program.

**Response:**

PEC objects to this item on the grounds that the requested information is not relevant to the subject matter of this proceeding.



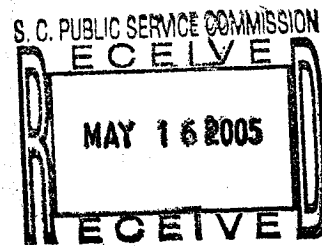
## **ATTACHMENT 2**

**BEFORE THE  
PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA**

**In the Matter of:**

**Carolina Power & Light Company d/b/a  
Progress Energy Carolinas, Inc.  
Annual Review of Base Rates  
For Fuel Costs**

**Docket No. 2005-1-E**



**PREPARED DIRECT TESTIMONY OF**

**DR. JAY ZARNIKAU**

**On Behalf of**

**Nucor Steel — South Carolina**

**May 11, 2005**

1 **VIII. PROPER FUEL ACCOUNTING FOR REAL-TIME PRICING PROGRAM**  
2 **SALES**

3 **Q. Describe PEC's Real Time Pricing rate?**

4 **A.** PEC offers a real time pricing program in South Carolina and North Carolina.  
5 The South Carolina program is provided under Schedule LGS-RTP-6. Copies of  
6 the South Carolina and North Carolina rate schedules are attached as Zarnikau  
7 Exhibit No. 6. Under these schedules, the customer pays an RTP hourly energy  
8 charge that includes the Marginal Energy Cost, which is defined as including  
9 "marginal fuel, variable operating expenses, and delivery losses."

10 **Q. How has PEC treated the fuel costs it incurs and recovers under its RTP**  
11 **rates?**

12 **A.** According to PEC's response to NUC-1-33, RTP energy sales and fuel costs are  
13 treated in the same manner as other general service retail sales. A copy of PEC's  
14 response to NUC-1-33 is contained in Zarnikau Exhibit No. 7.

15 **Q. Is this an appropriate treatment for fuel costs incurred and recovered under**  
16 **an RTP rate?**

17 **A.** No.

18 **Q. Please explain how the fuel costs incurred and recovered under PEC's RTP**  
19 **rates should be treated.**

20 **A.** PEC should assign the *marginal* fuel cost and losses that are included in the RTP  
21 hourly prices and that are incurred by PEC in serving RTP customers to the RTP  
22 customers consistent with the pricing program. Specifically, this could be  
23 accomplished either by: (a) removing RTP sales and the hourly marginal fuel cost  
24 and delivery losses from the system fuel cost calculation or (b) removing from  
25 system fuel cost the difference between (i) the hourly marginal fuel cost and  
26 delivery losses and (ii) the average fuel cost.

1   **Q.    Would your proposed treatment affect the price actually paid by such**  
2       **customers?**

3   **A.    No. Such customers already pay the hourly marginal fuel cost and delivery losses**  
4       **in their rate; my proposal would simply ensure that these payments are properly**  
5       **credited to fuel costs in order to reduce the cost of fuel to the other customers.**

6   **Q.    Please explain why this treatment would be appropriate.**

7   **A.    The whole purpose of RTP is to provide energy consumers with prices that better**  
8       **reflect the changing short-run marginal cost of providing electricity to the**  
9       **consumer, thereby encouraging them to make economically efficient consumption**  
10       **decisions. Marginal fuel cost is one component of the total short-run marginal**  
11       **costs that are incurred in providing electricity to the consumer. Since RTP**  
12       **customers are paying rates based on this marginal cost of fuel (and losses), then it**  
13       **is appropriate that this marginal cost of fuel (and losses) is actually assigned to**  
14       **these sales. Otherwise, these incremental sales will increase the fuel costs and**  
15       **fuel factor for other customers while PEC keeps the difference between the**  
16       **average fuel factor and the marginal cost of fuel for these sales.**

17   **Q.    Have you calculated an adjustment to reflect this recommendation in the**  
18       **historical fuel costs in this proceeding?**

19   **A.    According to PEC's response to NUC-1-33 (b), the data required to make this**  
20       **adjustment is confidential. While it is available for review in PEC's offices, it**  
21       **would be impractical for anyone to attempt to perform this calculation without**  
22       **actual data files, since an adjustment would require manipulation of hourly**  
23       **marginal fuel cost data and hourly RTP program sales. It makes more sense for**  
24       **the Commission to require PEC to make this adjustment.**

25               As a result, I suggest that the Commission order PEC to perform the  
26       necessary calculations and revise the historical fuel costs and under-recovery  
27       accordingly. I also recommend that the Commission order PEC to treat fuel costs

1 incurred in serving RTP customers in the manner that I have described on a  
2 going-forward basis.

3 **Q. Can you illustrate the impact of this recommendation?**

4 **A.** Yes. PEC has a significant amount of sales priced under RTP rates – for the  
5 historical test period in this case, these sales amounted to 1,142,701,859 kWh.  
6 As a hypothetical illustration, assuming just a one cent per kWh difference  
7 between average monthly marginal fuel costs and average monthly fuel costs  
8 (which is probably quite conservative), this adjustment would produce a  
9 \$11,427,019 reduction in system fuel costs and a \$1,597,621 reduction in South  
10 Carolina jurisdictional fuel costs.

11 **IX. PEC'S FORECAST OF FUEL COSTS**

12 **Q. Has PEC forecasted its average monthly cost of fuel for April 2005 through**  
13 **June 2006?**

14 **A.** Yes. This information is contained in Barkley Exhibit No. 4. PEC's forecast  
15 appears to be derived from a computer simulation that generates this average fuel  
16 cost based on projections and assumptions as to the price of various fuels,  
17 purchased power, transmission costs, SO2 emission allowances and simulated  
18 operation of PEC's generation system.

19 **Q. Does this approach accurately establish future fuel costs?**

20 **A.** No. The forecast is entirely dependent on the various assumptions on which the  
21 computer model is built and the assumptions as to all of the inputs. Utilities  
22 Department Exhibits No. 6 and No. 9, produced by the Commission Staff in past  
23 PEC cases, illustrate the historical inaccuracy inherent in this type of forecasting.  
24 I have included these Staff exhibits from 1998 to the present in my Zarnikau  
25 Exhibit No. 8. These forecasts become particularly suspect when the underlying  
26 assumptions, such as the price of fuel, is subject to significant volatility. The  
27 effects are demonstrated in the average monthly fuel costs for the historical test

**ZARNIKAU**  
**EXHIBIT NO. 6**

**LARGE GENERAL SERVICE  
(EXPERIMENTAL - REAL TIME PRICING)  
SCHEDULE LGS-RTP-6**

**AVAILABILITY**

This Schedule is available for electric service on an experimental basis to a maximum of fifteen (15) nonresidential customers with a Contract Demand that equals or exceeds 1,000 kW.

This Schedule is not available: (1) for short-term or temporary service; (2) for electric service in conjunction with Curtailable Load Rider No. 58, Incremental Power Service Rider IPS, Dispatched Power Rider No. 68, Standby and Supplementary Service Rider No. 7, Customer Generation Service Rider No. 55, and Economic Development Rider ED; (3) to a customer who had discontinued receiving service under this Schedule, or its predecessor, during the previous 12 months; (4) for any new customer with a Contract Demand in excess of 50,000 kW; or (5) for service rendered on and after December 31, 2007. Power delivered under this Schedule shall not be used for resale, or as a substitute for power contracted for or which may be contracted for under any other schedule of Company, except at the option of Company, under special terms and conditions expressed in writing in the contract with Customer. Customer shall be required to furnish and maintain a communication link and equipment suitable to support remote reading of Company's meter serving Customer and to support daily receipt of the Hourly Real Time Pricing (RTP) Rates.

**APPLICABILITY**

This Schedule is applicable to all electric service of the same available type supplied to Customer's premises at one point of delivery through one meter.

**TYPE OF SERVICE**

The types of service to which this Schedule is applicable are alternating current, 60 hertz, three-phase 3 or 4 wires, at Company's standard voltages of 480 volts or higher. When Customer desires two or more types of service, which types can be supplied from a three-phase 4 wire type, without voltage transformation, only the type of service necessary for Customer's requirements will be supplied under this Schedule.

**CONTRACT DEMAND**

The Contract Demand shall be the kW of demand specified in the Service Agreement.

**CUSTOMER BASELINE LOAD (CBL)**

Company shall establish a Customer Baseline Load (CBL), expressed in kilowatt-hours, using one complete year of Customer-specific hourly load data that, in Company's opinion, represents Customer's electricity consumption pattern and is typical of Customer's operation for billing under the otherwise applicable tariffs and from which to measure changes in consumption for billing pursuant to this Schedule. For situations in which hourly load data are not available, a CBL will be constructed by Company using load shapes of customers with similar usage patterns and from relevant information provided by Customer and verified by Company. Establishment of a CBL is a precondition for use of this Schedule.

**CBL DETERMINATION**

The CBL shall be adjusted at Company's sole discretion to reflect: (1) installation of permanent energy

efficiency measures; (2) permanent removal or addition of Customer's equipment; (3) one-time extraordinary events such as natural disasters; (4) annual plant shutdowns or other random variations in the load patterns; and (5) other changes in usage. After the initial CBL is established, it shall only be subject to a downward adjustment at Customer's request by providing 30 days advance written notice of a permanent reduction of electrical load due to the installation of demonstrable energy efficiency measures or removal of Customer's equipment. Such downward adjustment is subject to Company's concurrence.

#### CBL CALENDAR MAPPING

To provide Customer with the appropriate CBL for the RTP Service Year, the hourly consumptions established by the CBL shall be calendar-mapped to the corresponding day of the RTP Service Year. Calendar-mapping is a day-matching method to ensure that Mondays are matched to Mondays, holidays to holidays, etc.

The CBL shall be established by first identifying holidays and then grouping the remaining days, i.e., Mondays, Tuesdays, etc, and averaging over the calendar month to result in hourly consumption for a typical week in each calendar month. The CBL result shall then be adjusted for each calendar month to reflect annual plant shutdowns, holidays, or other known work stoppages during the next RTP Service Year. Calendar-mapping is performed prior to each annual renewal of service under this Schedule after adjustments, if any, are made to the CBL.

#### MONTHLY RATE

The monthly rate shall consist of the following charges:

I. RTP Administrative Charge:

\$500.00

II. RTP Base Charge:

RTP Base Charge = Monthly Bill for the hourly CBL consumption of the current billing month pursuant to the conventional LGS Class tariffs under which Customer either previously received service or would have elected to receive service prior to electing this Schedule.

III. RTP Hourly Energy Charge Adjustment:

RTP Hourly Energy Charge =  $\sum \{ \text{Hourly RTP Rate} \times (\text{Hourly Consumption} - \text{CBL Consumption}) \}$

where:

$\sum$  = The summation of the RTP charges and credits for each hour of the current billing month.

The Hourly RTP Rate shall be determined based upon the following formula:

Hourly RTP Rate =  $(\text{MENERGY} + \text{CAP} + \text{ADDER}) \times (1 + \text{TAXES})$

where:

MENERGY = Marginal Energy Cost per kilowatt-hour including marginal fuel, variable operating and maintenance expenses, and delivery losses



CAP = Tiered Capacity Charge per kilowatt-hour applicable whenever the day-ahead forecast of the ratio of hourly available generation to hourly demand is equal or less than 1.15

ADDER =  $\beta \times$  (Class Rate-Hourly Marginal Cost), but not less than zero.

where:

$\beta$  = a fixed value equal to 0.20

Class Rate = the prior calendar year average rate per kilowatt-hour under the conventional tariffs applicable to the LGS class, as updated annually effective with the February billing

Hourly Marginal Cost = the sum of the specific hour's kilowatt-hour price for MENERGY and CAP, all as defined above

TAXES = South Carolina Gross Receipts Tax (currently 0.3%)

#### IV. Facilities Demand Charge:

per kW of Facilities Demand for service provided from:

Transmission System (voltage of 69 kV or higher) without transformation	\$1.74/kW
Transmission System (voltage of 69 kV or higher) with one transformation	\$2.17/kW
Distribution System (voltage below 69 kV) without transformation	\$2.34/kW
Distribution System (voltage below 69 kV) with one transformation	\$2.66/kW

The kW of Facilities Demand shall be the greater of (1) the Contract Demand or (2) the maximum demand registered or recorded by Company's meter during a 15-minute interval in the current billing month, in excess of the maximum demand included in the CBL applicable to the current billing month. The Facilities Demand shall include any Standby Service kW, when applicable.

#### PROVISION OF STANDBY SERVICE

If service is received under a standby service tariff prior to service under this Schedule, the use of standby service shall be excluded from initial determination and update of the CBL. The RTP Base Charge, as set forth in the Monthly Rate provision above, shall include billing of Supplementary Service but shall not include any charges related to reservation or use of Standby Service. If Standby Service is provided, Customer must contract to receive service under Standby Service Rider No. SS, or its successor. However, notwithstanding any provisions of Rider SS, the Demand Delivery Charge, Daily Demand Charge and Energy Charge shall not be applicable for billing purposes under this Schedule. Any use of Standby Service shall be billed pursuant to the RTP Hourly Energy Charge provisions of this Schedule.

#### POWER FACTOR ADJUSTMENT

When the power factor in the current billing month is less than 85%, the monthly bill will be increased by a sum equal to \$0.30 multiplied by the difference between the maximum reactive kilovolt-amperes (kVAR) registered by a demand meter suitable for measuring the demand used during a 15-minute interval and 62% of the maximum kW demand registered in the current billing month.

### CUSTOMER RATE NOTIFICATION

Company will notify Customer of the hourly prices via electronic mail, or other method of communications acceptable to Company, by 4 p.m. of the preceding business day. Prices for Saturday, Sunday and Monday will generally be available on the preceding Friday. For a recognized holiday and the day following the holiday, prices will be available the preceding Company business day. Whenever prices are provided in excess of a day ahead and updated projections would result in significantly different prices, Company reserves the right to issue revised prices provided such prices are conveyed no later than 4 p.m. on the preceding calendar day.

Company is not responsible nor liable for Customer's failure to receive and act upon the hourly prices. If Customer does not receive these prices, it is Customer's responsibility to inform Company so that future prices may be supplied.

### SALES AND FRANCHISE TAX OR PAYMENT IN LIEU THEREOF

To the above charges will be added any applicable South Carolina sales tax, and for those customers within any municipal or other local governmental jurisdiction, an appropriate amount to reflect any franchise fee, business license tax, or similar percentage fee or tax, or charge in lieu thereof imposed by such entity.

### PAYMENTS

Bills are due when rendered and are payable within 15 days from the date of the bill. If any bill is not so paid, the Company has the right to suspend service in accordance with its Service Regulations. In addition, any bill not paid on or before the expiration of twenty-five (25) days from the date of the bill is subject to an additional charge of 1% per month as provided in Rule 103-339(3) of the Rules and Regulations of the South Carolina Public Service Commission.

### CONTRACT PERIOD

The Contract Term shall be for one year and will be automatically renewed annually unless terminated by either party by giving not less than thirty (30) days written notice of termination. In the event the Contract Period extends beyond December 31, 2007, the Contract Period shall instead be a period ending December 31, 2007. During the initial 12 months of service under this Schedule, the Contract Period may be terminated, at Company's option, when continued service under this Schedule will result in a demonstrable economic hardship for the Customer.

### GENERAL

Service rendered under this Schedule is subject to the provisions of the Service Regulations and any changes therein, substitutions therefor, or additions thereto lawfully made.

Company makes no representation regarding the benefits of Customer subscribing to this Schedule. Customer, in its sole discretion, shall determine the feasibility and benefits of Customer subscribing to this Schedule.

Supersedes Schedule LGS-RTP-4

Effective for service rendered on and after October 28, 2004

SCPSC Docket No. 97-057-E, Order No. 2004-545

LARGE GENERAL SERVICE  
(EXPERIMENTAL - REAL TIME PRICING)  
SCHEDULE LGS-RTP-5B

AVAILABILITY

This Schedule is available for electric service on an experimental basis to a maximum of eighty-five (85) nonresidential Customer accounts with a Contract Demand that equals or exceeds 1,000 kW.

This Schedule is not available: (1) for short-term or temporary service; (2) for electric service in conjunction with Incremental Power Service Rider IPS or Dispatched Power Rider No. 68; (3) for electric service in conjunction with Economic Development Rider ED and Curtailable Load Riders No. 58 and CL, except as provided for in the RTP Base Charge; (4) to a customer who had discontinued receiving service under this Schedule, or its predecessor, during the experiment; (5) for any new Customer with a Contract Demand in excess of 50,000 kW; or (6) for service rendered on and after December 31, 2009.

Power delivered under this Schedule shall not be used for resale, or as a substitute for power contracted for or which may be contracted for under any other schedule of Company, except at the option of Company, under special terms and conditions expressed in writing in the contract with Customer. Customer shall be required to furnish and maintain a communication link and equipment suitable to support remote reading of Company's meter serving Customer and to support daily receipt of the Hourly Real Time Pricing (RTP) rates.

APPLICABILITY

This Schedule is applicable to all electric service of the same available type supplied to Customer's premises at one point of delivery through one meter.

TYPE OF SERVICE

The types of service to which this Schedule is applicable are alternating current, 60 hertz, three-phase 3 or 4 wires, at Company's standard voltages of 480 volts or higher. When Customer desires two or more types of service, which types can be supplied from a three-phase 4 wire type, without voltage transformation, only the type of service necessary for Customer's requirements will be supplied under this Schedule.

CONTRACT DEMAND

The Contract Demand shall be the kW of demand specified in the Service Agreement.

CUSTOMER BASELINE LOAD (CBL)

Company shall establish a Customer Baseline Load (CBL), expressed in kilowatt-hours, using one complete year of Customer-specific hourly load data that, in Company's opinion, represents Customer's electricity consumption pattern and is typical of Customer's operation for billing under the otherwise applicable tariffs and from which to measure changes in consumption for billing pursuant to this Schedule. For situations in which hourly load data are not available, a CBL will be constructed by Company using load shapes of Customers with similar usage patterns and from relevant information provided by Customer and verified by Company. The initial CBL shall consider verifiable changes in Customer's operation such as (1) installation of permanent energy efficiency measures; (2) permanent removal or addition of Customer's equipment; (3) one-time extraordinary events such as natural disasters; (4) annual plant shutdowns or other random variations in the load patterns; and (5) other on-going changes in demand. The CBL for new customers will be calculated in the same manner as the CBL for existing Customers. Establishment of a CBL is a precondition for use of this Schedule.

### SUBSEQUENT CBL ADJUSTMENT

After the initial CBL is established, it shall only be subject to an adjustment at Customer's request by providing 30-days advance written notice. Any downward adjustment is subject to Company's concurrence and will be consistent with the principles of initial CBL establishment.

### CBL CALENDAR MAPPING

To provide Customer with the appropriate CBL for the RTP Service Year, the hourly consumptions established by the CBL shall be calendar-mapped to the corresponding day of the RTP Service Year. Calendar-mapping is a day-matching method to ensure that Mondays are matched to Mondays, holidays to holidays, etc.

The CBL shall be established by first identifying holidays and then grouping the remaining days (i.e., Mondays, Tuesdays, etc.) and averaging over the calendar month to result in hourly consumption for a typical week in each calendar month. The CBL result shall then be adjusted for each calendar month to reflect annual plant shutdowns, holidays, or other known work stoppages during the next RTP Service Year. Calendar-mapping is performed prior to each annual renewal of service under this Schedule after adjustments, if any, are made to the CBL.

### MONTHLY RATE

The monthly rate shall consist of the following charges:

I. RTP Administrative Charge:

\$500.00

II. RTP Base Charge:

RTP Base Charge = Monthly Bill for the CBL consumption and monthly billing demand of the current billing month pursuant to the conventional LGS Class tariffs under which Customer either previously received service or would have elected to receive service prior to electing this Schedule. When the conventional tariffs include Economic Development Rider ED or Curtailable Load Rider No. 58 or CL, the provisions of these Riders shall only apply to the CBL usage.

III. RTP Hourly Energy Charge Adjustment:

RTP Hourly Energy Charge =  $\Sigma\{\text{Hourly RTP Rate} \times (\text{Hourly Consumption} - \text{CBL Consumption})\}$

where:

$\Sigma$  = The summation of the RTP charges and credits for each hour of the current billing month.

The Hourly RTP Rate shall be determined based upon the following formula:

Hourly RTP Rate =  $(\text{MENERGY} + \text{CAP} + \text{ADDER}) \times (1 + \text{TAXES})$

where:

MENERGY = Marginal Energy Cost per kilowatt-hour including marginal fuel, variable operating and maintenance expenses, and delivery losses

CAP = Tiered Capacity Charge per kilowatt-hour applicable whenever the day-ahead forecast of the ratio of hourly available generation to hourly demand is equal or less than 1.15

ADDER =  $\beta \times$  (Class Rate-Hourly Marginal Cost), but not less than zero

where:

$\beta$  = a fixed value equal to 0.20

Class Rate = the prior calendar year average rate per kilowatt-hour under the conventional tariffs applicable to the LGS class, as updated annually effective with the February billing

Hourly Marginal Cost = the sum of the specific hour's kilowatt-hour price for MENERGY and CAP, all as defined above

TAXES = North Carolina Gross Receipts Tax (currently 3.22%)

#### IV. Facilities Demand Charge:

per kW of Facilities Demand for service provided from:

Transmission System (voltage of 69 kV or higher) without transformation	\$1.74/kW
Transmission System (voltage of 69 kV or higher) with one transformation	\$2.17/kW
Distribution System (voltage below 69 kV) without transformation	\$2.34/kW
Distribution System (voltage below 69 kV) with one transformation	\$2.66/kW

The kW of Facilities Demand shall be the greater of (1) the Contract Demand or (2) the maximum demand registered or recorded by Company's meter during a 15-minute interval in the current billing month, in excess of the maximum 15-minute billing demand included in the CBL applicable to the current billing month. The Contract Demand used to determine the Facilities Demand shall exclude any Standby Service kW, when applicable.

#### PROVISION OF STANDBY SERVICE

If service is received under a standby or back-up service tariff prior to service under this Schedule, the use of standby service shall be excluded from initial determination of the CBL. The RTP Base Charge, as set forth in the Monthly Rate provision above, shall include billing of Supplementary Service but shall not include charges related to use of Standby Service. The Monthly Rate provisions of the applicable standby or back-up service tariff shall be calculated assuming no standby or back-up service was used with any actual use of Standby Service being billed pursuant to the RTP Hourly Energy Charge provisions of this Schedule. All other provisions of the applicable standby or back-up service tariff apply.

#### POWER FACTOR ADJUSTMENT

When the power factor in the current billing month is less than 85%, the monthly bill will be increased by a sum equal to \$0.40 multiplied by the difference between the maximum reactive kilovolt-amperes (kVAr) registered by a demand meter suitable for measuring the demand used during a 15-minute interval and 62% of the maximum kW demand registered in the current billing month.

### CUSTOMER RATE NOTIFICATION

Company will notify Customer of the hourly prices via electronic mail, or other method of communications acceptable to Company, by 4 p.m. of the preceding business day. Prices for Saturday, Sunday, and Monday will generally be available on the preceding Friday. For a recognized holiday and the day following the holiday, prices will be available the preceding Company business day. Whenever prices are provided in excess of a day ahead and updated projections would result in significantly different prices, Company reserves the right to issue revised prices provided such prices are conveyed no later than 4 p.m. on the preceding calendar day.

Company is not responsible nor liable for Customer's failure to receive and act upon the hourly prices. If Customer does not receive these prices, it is Customer's responsibility to inform Company so that future prices may be supplied.

### SALES TAX

To the above charges will be added any applicable North Carolina Sales Tax.

### PAYMENTS

Bills are due when rendered and are payable within 15 days from the date of the bill. If any bill is not so paid, Company has the right to suspend service in accordance with its Service Regulations. In addition, any bill not paid on or before the expiration of twenty-five (25) days from the date of the bill is subject to an additional charge of 1% per month as provided in Rule R12-9 of the Rules and Regulations of the North Carolina Utilities Commission.

### CONTRACT PERIOD

The Contract Period shall be monthly and will be automatically renewed unless terminated by either party by giving not less than thirty (30) days written notice of termination. In the event the Contract Period extends beyond December 31, 2009, the Contract Period shall instead be a period ending December 31, 2009.

### GENERAL

Service rendered under this Schedule is subject to the provisions of the Service Regulations and any changes therein, substitutions therefor, or additions thereto lawfully made.

Company makes no representation regarding the benefits of Customer subscribing to this Schedule. Customer, in its sole discretion, shall determine the feasibility and benefits of Customer subscribing to this Schedule.

Supersedes Schedule LGS-RTP-5A  
Effective for service rendered on and after October 1, 2003  
NCUC Docket No. E-2, Sub 704

**ZARNIKAU**  
**EXHIBIT NO. 7**

**PROGRESS ENERGY CAROLINAS, INC.**

**Request:**

Referring to PEC's treatment of its experimental real-time pricing rate in which the RTP Hourly Energy Charge is determined by hourly marginal costs (whether in NC or SC):

- (a) For the period under review, please explain, support, and provide all evidence or documentation for how PEC has treated sales and fuel costs for its experimental real-time pricing rate.
- (b) Indicate the RTP Hourly Energy Charge by hour (and the hourly marginal cost used as a basis for that charge, if different) for each hour during the historical period and the number of RTP kWh sold in each such hour;
- (c) Please provide a copy of each real-time pricing tariff and any related documents explaining the operation of the real time pricing program.

**Response:**

- a) Energy sales and fuel revenues under the Large General Service Experimental Real Time Pricing Schedule are recorded on the Company's books in the same manner of other general service tariffs. The reported fuel revenue reflects the fuel factor approved by the Commission.
- b) The RTP hourly rate and the marginal energy cost used in its development are deemed to be confidential and will therefore be made available for review in PEC's offices. NC and SC hourly energy sales under Schedule LGS-RTP are not retained but are available on a billing month basis as follows:

<u>Billing Month</u>	<u>RTP Hourly Sales (kWh)</u>
Jan-04	45,968,718
Feb-04	77,504,006
Mar-04	60,212,235
Apr-04	68,351,985
May-04	87,513,592
Jun-04	88,173,809
Jul-04	91,362,119
Aug-04	82,481,453
Sep-04	87,934,762
Oct-04	72,187,109
Nov-04	75,810,267
Dec-04	73,640,070
Jan-05	71,760,119
Feb-05	80,890,654
Mar-05	78,910,861

RTP Hourly Sales exclude sales made under the Customer Baseline Load and only reflect net sales under the Schedule that are subject to RTP hourly rates.



Nucor-Steel First Data Request  
PEC Fuel Case-Docket No. 2005-1-E  
Item No. NUC-1-33  
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- c) A copy of the Large General Service (Experimental – Real Time Pricing) Schedule LGS-RTP is available at Progress Energy's external website under "electric rates" at the following link:

<http://progress-energy.com/aboutenergy/rates/index.asp>

The LGS-RTP Schedule is available in both the North Carolina and South Carolina jurisdiction.

## **ATTACHMENT 3**

**PROGRESS ENERGY CAROLINAS, INC.**

**Request:**

Does PEC have any real time pricing contracts in which energy charges are based on hourly fuel costs or hourly system lambdas? If the answer is yes, identify such contracts/customers and explain how these sales and fuel costs are treated for purposes of this filing.

**Response:**

PEC has an experimental real time pricing rate in which the RTP Hourly Energy Charge, or credit, is determined in part by hourly marginal costs. Sales and fuel costs for this rate are treated the same as for other rates for purposes of this filing. PEC and its customers consider contracts between the parties to be confidential.

**BEFORE THE  
PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA**

**DOCKET NO. 2006-1-E**

**In the Matter of:**

**Carolina Power & Light Company d/b/a  
Progress Energy Carolinas, Inc.  
Annual Review of Base Rates  
For Fuel Costs**

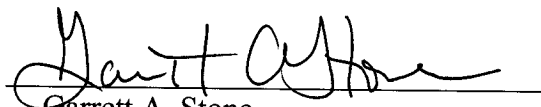
**Certificate of Service**

This is to certify that a copy of the foregoing document, **NUCOR'S MOTION TO COMPEL PEC TO RESPOND TO NUCOR DISCOVERY REQUEST NO. NUC-1-30**, was served upon the following parties at the addresses set forth by first-class mail, electronic mail, telefax, or Federal Express on this the 18<sup>th</sup> day of April, 2006:

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